

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* YASUO IWASA and SHIGEKAZU OI

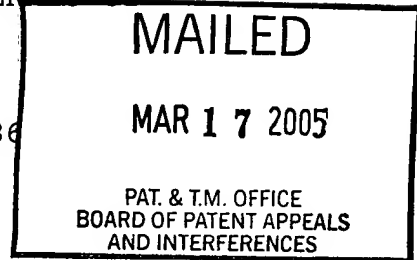
---

Appeal No. 2004-2257  
Application No. 09/841,486

---

HEARD: FEBRUARY 8, 2005

---



Before GARRIS, PAK, and JEFFREY T. SMITH, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1 through 6, 8 through 11 and 13 through 19.<sup>1</sup> Claims 20 and 21, the only other claims

---

<sup>1</sup> After indicating cancellation of claims 7 and 12 in the above-identified application, the appellants have inadvertently asserted that they are appealing "from the [e]xaminer's rejection of claims 1-7, 9-11 and 13-19." See the Brief dated February 23, 2004, page 2. By making the claims on appeal to reflect those which have not been canceled, we have made appropriate correction

Appeal No. 2004-2257  
Application No. 09/841,486

remaining in the above-identified application, were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. See the Answer, page 2. Claim 1 was amended subsequent to the final Office action dated March 21, 2003.

*APPEALED SUBJECT MATTER*

The subject matter on appeal is directed to "[a] stretched porous resin film" useful for an ink jet recording medium, having excellent aqueous liquid or ink absorptivity. See claim 1, together with the specification, page 1. Details of the appealed subject matter are recited in claim 1 which is reproduced below:

1. A stretched porous resin film which is obtained from a compound prepared by kneading a composition consisting essentially of 30 to 100% by weight of a thermoplastic resin comprising 5 to 100 parts by weight of a

---

to the appellants' inadvertent error in the Brief consistent with the appellants' subsequent corrective statement at page 2 of the Reply Brief dated June 29, 2004. The appellants have also asserted for the first time in the appeal that they are appealing from the examiner's objection to claims 20 and 21. See the Reply Brief, page 2. By so asserting, the appellants have failed to recognize that the examiner's objection is not a matter reviewable by the Board (the Board of Patent Appeals and Interferences). The appellants' remedy is through a timely filed petition to the Director of the appropriate Technology Center under 37 CFR § 1.181 (2003).

hydrophilic thermoplastic resin per 100 parts by weight of a non-hydrophilic thermoplastic resin and 0 to 70% by weight of at least one of an inorganic fine powder and an organic fine powder in an intermeshing twin-screw extruder at a screw shear rate of 300 sec<sup>-1</sup> or higher and which has a liquid absorbing capacity of 0.5 ml/m<sup>2</sup> or more as measured in accordance with the method specified in Japan TAPPI Standard No. 51-87

*PRIOR ART*

The examiner relies on the following prior art references:

Suzuki et al. (Suzuki)	4,506,037	Mar. 19, 1985
Arai et al. (Arai)	4,686,118	Aug. 11, 1987
Fujita et al. (Fujita)	5,059,630	Oct. 22, 1991

*THE REJECTIONS*

The appealed claims stand rejected as follows:

- 1) Claims 1 through 6, 8, 9 and 13 through 19 under 35 U.S.C. § 102(b) as anticipated by the disclosure of Suzuki<sup>2</sup>;
- 2) Claim 10 stands rejected under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Suzuki and Arai; and

---

<sup>2</sup> At page 3 of the Answer, the examiner has inadvertently included canceled claim 7 in this rejection. We have corrected this inadvertent error made by the examiner by deleting canceled claim 7 from the statement of rejection.

- 3) Claim 11 stands rejected under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Suzuki, Arai and Fujita.

*OPINION*

We have carefully reviewed the claims, specification and prior art, including all of the arguments advanced by both the examiner and the appellants in support of their respective positions. This review has led us to conclude that the examiner's rejections are not well founded. Accordingly, we will not sustain the examiner's rejections for the reasons set forth in the Brief, the Reply Brief and below.

*SECTION 102 REJECTION*

Under Section 102, anticipation is established only when a single prior art reference clearly and unequivocally discloses, either expressly or under the principles of inherency, each and every element of the claimed subject matter without any need for picking, choosing and combining various disclosures within the reference. *In re Arkley*, 455 F.2d 586, 587-88, 172 USPQ 524, 526 (CCPA 1972).

Here, as evidence of anticipation of the subject matter defined by claims 1 through 6, 8, 9 and 13 through 19 under Section 102(b), the examiner relies on the disclosure of Suzuki.

Suzuki, however, does not clearly and unequivocally disclose the claimed subject matter. To arrive at the claimed subject matter, a person having ordinary skill in the art must select specific proportions of specific hydrophilic solid powders falling within the generic teachings provided by Suzuki. The resin foams exemplified in Suzuki, for example, are not produced by using a thermoplastic resin containing the claimed proportion of a hydrophilic thermoplastic resin. See columns 7-13, Examples 1-6. To remedy this deficiency in Suzuki's examples, one of ordinary skill in the art must not only be able to envisage a hydrophilic thermoplastic resin from the large list of hydrophilic solid powders provided at column 2, lines 51-66, of Suzuki, but also be able to readily select the claimed proportion from Suzuki's disclosed proportions based on the end uses different from that disclosed by the appellants. Compare Suzuki, column 5, lines 23-37 and column 7, lines 7-16, with the specification, page 4-7. As stated in *Arkley*, such picking and choosing of ingredients and proportions to arrive at the claimed subject matter have no place in the making of a Section 102 anticipation rejection.<sup>3</sup>

---

<sup>3</sup> On this record, the examiner has not established that one of ordinary skill in the art would have been motivated to use the claimed proportion of the fine hydrophilic thermoplastic resin in the articles taught by Suzuki since Suzuki does not teach using

It follows that the examiner on this record has not established a *prim facie* case of anticipation. Accordingly, we reverse the examiner's Section 102 rejection.

#### SECTION 103 REJECTIONS

Under Section 103, both the motivation or suggestion to combine the prior art teachings and the requisite reasonable expectation of success must be found in the prior art references in order to establish a *prima facie* case of obviousness. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

Here, as evidence of obviousness of the subject matter defined by claims 10 and 11 under Section 103, the examiner relies on the disclosures of Suzuki, Arai and Fujita. According to the examiner (Answer, pages 7-8), Suzuki teaches all the claimed limitations, except for the hydrophilic alkylene oxide polymer recited in claim 10 or the hydrophilic alkylene oxide polymer produced by a reaction between an alkylene oxide compound and a dicarboxylic acid compound as recited in claim 11. The

---

the fine hydrophilic thermoplastic resin for forming the recording medium contemplated by the appellants. See column 7, lines 6-16. As indicated by Suzuki (column 5, lines 23-37), the proportion of the fine hydrophilic solid powder used "can be varied **widely** according to the types of the resin and the fine solid powder, the water absorption and the water vapor adsorption ratio required of the resulting porous agglomerated particles, **etc.**" (Emphasis added).

examiner then relies on Arai to teach a hydrophilic alkylene oxide polymer and Fujita to teach a hydrophilic alkylene oxide polymer formed from a reaction between an alkylene oxide compound and a dicarboxylic acid compound. *Id.* Based on these combinations of teachings, the examiner holds that it would have been obvious to use the hydrophilic alkylene oxide polymer taught by Arai and/or Fujita as the hydrophilic powder of Suzuki. *Id.* According to the examiner (*Id.*), one of ordinary skill in the art would have been motivated to use the hydrophilic alkylene oxide polymer taught by Arai and/or Fujita as the hydrophilic powder of Suzuki because of "its ready availability and economic advantage" or because "an alkylene oxide polymer and melamine [taught in Suzuki] have been shown in the art to [be] recognized equivalent hydrophilic resin[s] which [are] compatible with the non-hydrophilic resin."

We cannot subscribe to the examiner's position. In the first place, the examiner does not point to any factual basis for concluding the so-called "art . . . recognized [equivalency]" and "economic advantage" for using the alkylene oxide polymer taught by Arai and Fujita. See the Answer, pages 7 and 8. In the second place, the examiner has not explained why one of ordinary skill in the art would have been led to employ an alkylene oxide

polymer useful for end uses different from that described in Suzuki. See the Answer in its entirety. We note that Suzuki, on the one hand, is directed to producing resin foams useful for making foam sheets, foamed blow-molded articles and foamed pipes as indicated *supra*. On the other hand, we note that Arai and Fujita are directed to forming an ink receptive layer for a recording medium and ultrafine fibers, respectively. See the abstracts of Arai and Fujita. In the third place, as indicated *supra*, the examiner has not explained why one of ordinary skill in the art would have been led to employ the claimed proportion of a hydrophilic thermoplastic resin desirable for a recording medium in forming Suzuki's resin foams.

Thus, on this record, we concur with the appellants that the examiner has failed to establish a *prima facie* case of obviousness. Accordingly, we reverse the examiner's decision rejecting claims 10 and 11 under 35 U.S.C. § 103.

*REMAND*

We note that Arai is the closest prior art. Arai teaches (column 4, lines 11-30) that:

The present inventors have studied intensively in order to overcome such drawbacks of the prior art and consequently found that use of a mixture of polymers with different properties relative to moisture, namely formation of an ink receiving layer by mixing Polymer A

and Polymer B, will not result in lowering in strength of the ink receiving layer even under high temperature and high humidity conditions without causing stickiness of the surface, and further can form an ink receiving layer exhibiting excellent ink receiving characteristic even under low temperature and low humidity conditions, thus revealing only the advantages of Polymer A and Polymer B without manifestation of the drawbacks of both polymers.

Polymer A and Polymer B . . . at least one of them should be a hydrophilic or water-soluble polymer.

In other words, Arai, like the appellants, teaches employing the claimed combination of thermoplastic resins to optimize, *inter alia*, an ink absorbing capacity of a recording medium. Arai then goes on to exemplify employing thermoplastic resins, including the claimed proportion of a hydrophilic thermoplastic resin, to improve an ink receiving layer of a recording medium. See columns 8-11, Examples 1-6, together with column 3, line 50 to column 4, line 41. Arai does not indicate that these thermoplastic resins are kneaded via an intermeshing twin-screw extruder at a shear rate of  $300 \text{ sec}^{-1}$  or higher. However, according to the appellants (specification, page 2), kneading these types of thermoplastic resins for the purpose of making an ink receiving layer for a recording medium is admittedly known as evidenced by JP-A-8-12871, JP-A-9-1920 and JP-A-314983.

Appeal No. 2004-2257  
Application No. 09/841,486

The court provides guidance for analyzing the patentability of product-by-process claims in *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 965-66 (Fed. Cir. 1985) as follows:

Product-by-process claims are not specifically discussed in the patent statute. The practice and governing law have developed in response to the need to enable an applicant to claim an otherwise patentable product that resists definition by other than the process by which it is made. For this reason, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972); *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969); *Buono v. Yankee Maid Dress Corp.*, 77 F.2d 274, 279, 26 USPQ 57, 61 (2d. Cir. 1935).

The patentability of a product does not depend on its method of production. *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Marosi*, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983); *Johnson & Johnson v. W. L. Gore*, 436 F.Supp. 704, 726, 195 USPQ 487, 506 (D. Del. 1977); *see also, In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Thus, upon return of this application to the examiner's jurisdiction, it is ORDERED that:

1) the examiner is to determine whether the ink receiving layer exemplified in Arai is identical or substantially identical to the claimed stretched porous resin film; and

Appeal No. 2004-2257  
Application No. 09/841,486

2) the examiner is to determine whether the combined teachings of Arai and the appellants' admission would have rendered the claimed stretched porous resin film obvious.

The above determinations necessarily require the examiner to obtain translated copies of the above-stated Japanese documents. If any of the above determinations results in a new ground of rejection, the examiner should reopen the prosecution of this application.

This remand to the examiner pursuant to 37 CFR § 41.50(a)(1) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) is made for further consideration of a rejection. Accordingly, 37 CFR § 41.50(a)(2) applies if a supplemental examiner's answer is written in response to this remand by the Board.



Appeal No. 2004-2257  
Application No. 09/841,486

*SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC*  
*2100 PENNSYLVANIA AVE., N.W.*  
*WASHINGTON, D.C. 20037-3213*